



# MULTIMETERS



HT64



HT63



HT62



HT61



HT60

**NEW**



JUPITER

**NEW**



NEPTUNE

**NEW**



MERCURY



FLASHMETER



IRONMETER



HT39



HT701



HT401



HT712

**MAIN MEASUREMENTS**

**PROFESSIONAL TRMS MULTIMETERS**

**PROFESSIONAL TRMS MULTIMETERS**

TRMS	HT64	HT63	HT62	HT61	HT60	JUPITER	NEPTUNE	MERCURY	FLASHMETER	IRONMETER	HT39	HT701	HT401	HT712
AC/DC voltage	• AC+DC	•	•	•	•	• AC+DC	• AC+DC	• AC+DC	•	•	•	•	• AC+DC	•
AC/DC voltage with low impedance (LoZ)	•	•	•	•	•	•	•	-	-	-	-	-	• AC	-
AC/DC current with external transducer	•	•	-	-	-	• Inrush	• Inrush	• AC+DC	-	-	-	-	-	-
AC/DC current with leads	• AC+DC	• AC+DC	•	•	-	-	-	•	-	-	•	•	• AC+DC	-
4-20mA% reading	•	•	-	-	-	-	-	-	-	-	-	-	-	-
Frequency	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Resistance	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Continuity with buzzer	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Capacitance	•	•	•	-	•	-	-	•	-	-	•	•	•	-
Diode test	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Duty Cycle (%)	•	•	•	•	•	-	-	•	-	-	•	-	-	-
Temperature with K-type probe	•	•	•	-	•	-	-	•	-	-	-	•	•	-
Insulation measurement (50,100,250,500,1000VDC)	-	-	-	-	-	-	•	-	-	-	-	•	-	-
Phase sequence and concordance	-	-	-	-	-	•	•	-	-	-	-	-	-	• + Conformity
Built-in LED torch	-	-	-	-	-	•	•	•	-	-	-	-	-	-
Test on A and AC general RCDs	-	-	-	-	-	•	-	-	-	-	-	-	-	-
L-L, L-N, L-PE, RA loop impedance	-	-	-	-	-	•	-	-	-	-	-	-	-	-
Voltage/Current harmonics + THD%	-	-	-	-	-	•	-	-	-	-	-	-	-	-
Continuity of protective conductors with 200mA	-	-	-	-	-	-	•	-	-	-	-	-	-	-

**ADDITIONAL CHARACTERISTICS**

Measurement category	CAT IV 600V	CAT IV 600V	CAT IV 600V	CAT IV 600V	CAT IV 600V	CAT IV 600V CAT III 690V		CAT IV 600V CAT III 1000V	CAT IV 600V CAT III 1000V	CAT IV 600V	CAT III 600V	CAT IV 600V CAT III 1000V	CAT IV 600V CAT III 1000V	CAT IV 600V CAT III 1000V	CAT IV 600V
Measuring counts	6000	60,000	6000	6000	4000	9999		9999	6000	4000	4000	4000	10000	6000	4000
Backlight	•	•	•	•	•	•		•	•	•	•	•	•	•	-
IR sensor resolution	-	-	-	-	-	-		-	• 80 x 80 pxd	-	-	-	-	-	-
Bluetooth	-	-	-	-	-	-		-	• with APP HTMercury	-	-	-	-	-	-
Bargraph	•	•	•	•	-	•		•	-	-	-	•	•	•	-
Autorange	•	•	•	•	•	•		•	-	-	•	•	•	•	•
Auto power off	•	•	•	•	•	•		•	•	•	•	•	•	•	•
Detection of AC voltage without contact	-	-	-	-	-	-		-	•	•	-	-	-	•	-
Data HOLD function	•	•	•	•	•	•		•	•	•	•	•	•	•	•
MIN/MAX/AVG functions	•	• MIN/MAX	• MIN/MAX	• MIN/MAX	•	• MIN/MAX		• MIN/MAX	• MIN/MAX	-	• MIN/MAX	• MIN/MAX	•	• MIN/MAX	-
PEAK function	• (1ms)	• (1ms)	-	-	-	• (1ms)		• (1ms)	•	-	-	•	-	•	-
Automatic recognition of AC/DC	-	-	-	-	-	-		-	-	•	-	-	-	-	•
Automatic recognition of internal functions	-	-	-	-	-	-		-	-	•	-	-	-	-	-
Relative measurement	•	•	•	•	•	-		-	•	-	-	•	•	-	-
Data logger and graph	•	-	-	-	-	-		-	•	-	-	• (through SW)	-	-	-
Memory for data saving	•	-	-	-	-	-		-	• (micro SD card)	-	-	-	•	-	-
Power supply	1x7,4V rechargeable Li-ION battery	4x 1.5V AAA	1x 9V 6F22	1x 9V 6F22	1x 9V 6F22	4x 1.5V AAA		4x 1.5V AAA	1x7,4V rechargeable Li-ION battery	2x 1.5V AAA	2x 1.5V AAA	1x 9V 6F22	4x 1.5V AA	1x 9V 6F22	2x 1.5V AAA
Size in mm (L x W x H)	175x85x55	175x85x55	175x85x55	175x85x55	175x85x55	175x85x55		175x85x55	190x75x55	135x75x40	120x85x45	164x82x44	207x95x52	190x94x48	250x51x30
Weight in grams	400	400	400	400	400	420		420	555	220	200	400	630	460	150
Safety	IEC/EN61010-1	IEC/EN61010-1	IEC/EN61010-1	IEC/EN61010-1	IEC/EN61010-1	IEC/EN61010-1		IEC/EN61010-1	IEC/EN61010-1	IEC/EN61010-1	IEC/EN61010-1	IEC/EN61010-1	IEC/EN61010-1	IEC/EN61010-1	IEC/EN61010-1
Order code	HR000010	HR000001	HR000002	HR000003	HR000004	HR00JUPI		HR00NEPK	HR000MER	HR000011	HR000005	HR000039	HR000701	HR000401	HR000712

# DIGITAL MULTIMETERS

**NEW**



HT211

**NEW**



HT21

**NEW**



HT25N



HT14D



HT12



HT10



HT8



HT7



HT6

## MAIN MEASUREMENTS

	DIGITAL MULTIMETERS				DIGITAL MULTIMETERS					
TRMS	•	-	-	-	-	-	-	-	-	-
AC/DC Voltage	•	•	•	•	•	•	•	•	•	•
AC Voltage with 1 terminal	-	-	-	-	-	-	•	•	•	•
AC Voltage with low impedance input	-	-	-	-	-	-	•	-	•	-
AC/DC Current	•	-	• DC	• DC	• DC	•	-	-	-	-
Frequency	•	•	-	-	-	•	-	-	-	-
Resistance	•	•	•	•	•	•	•	-	-	-
Continuity with buzzer	•	•	•	-	-	•	•	•	•	•
Capacitance	•	•	-	-	-	-	-	-	-	-
Diode test	•	•	•	-	-	-	-	•	-	•
Duty Cycle (%)	•	•	-	-	-	-	-	-	-	-
Temperature with K-type probe	•	-	-	-	-	-	-	-	-	-
Phase sequence and phase concordance	-	-	-	-	-	-	•	•	•	•
Built-in LED torch	-	-	-	-	-	-	•	•	•	•

## ADDITIONAL CHARACTERISTICS

Measurement category	CAT III 600V	CAT III 600V	CAT III 600V	CAT III 300V CAT II 600V	CAT III 300V CAT II 600V	CAT III 1000V CAT IV 600V	CAT IV 600V CAT III 690V	CAT IV 600V CAT III 1000V	CAT IV 600V CAT III 690V
Measuring counts	4000	4000	2000	2000	3400	1999	6900	1999	LED indications
Backlight	•	•	•	-	-	•	-	•	-
Bargraph	-	-	-	-	•	-	-	-	-
Autorange	•	•	-	-	•	•	-	•	-
Auto power off	•	•	-	-	•	•	•	•	•
Data HOLD function	•	•	•	•	•	•	•	-	•
MIN/MAX function	•	-	-	-	-	-	-	-	-
PEAK function	-	-	-	-	-	-	-	-	-
Relative measurement	-	•	-	-	-	-	-	-	-
Power supply	2x 1.5V AAA	1x 9V 6F22	1x 9V 6F22	1x 12V MS21/MN21	2x 1.5V AAA	2x 1.5V AAA	2x 1.5V AA	2x 1.5V AAA	2x 1.5V AA
Size in mm (L x W x H)	138x68x37	138x68x37	150x70x48	105x50x25	128x87x24	270x70x30	255x60x35	240x78x40	255x60x35
Weight in grams	235	210	255	100	210	290	170	240	170
Safety	IEC/EN61010-1	IEC/EN61010-1	IEC/EN61010-1	IEC/EN61010-1	IEC/EN61010-1	IEC/EN61010-1	IEC/EN61010-1	IEC/EN61010-1 IEC/EN61243-3:2014	IEC/EN61010-1
Order code	HR000211	HR000021	HR00025N	HR00014D	HR000012	HR000100	HR000008	HR000007	HR000006



ORDER CODE HR000010 | HR000001 | HR000002 | HR000003 | HR000004

# HT64 | HT63 | HT62 | HT61 | HT60

SERIES OF TRMS / CAT IV  
PROFESSIONAL DIGITAL MULTIMETERS  
WITH DATA LOGGER FUNCTIONS (HT64)

The new series of HT professional multimeters is the result of an important research conducted at the most demanding users of this kind of equipment, namely laboratories where the choice of a measuring instrument is subject to strict tests concerning **precision, reliability and safety of measurements even in extreme conditions.**

Therefore, a complete range multimeters, all able to measure in TRMS, all within CAT IV 600V, autorange function available on all models, with backlight display. The design is extremely modern and attractive, but also **ergonomic**, to ensure **maximum ease of use**. Display with **high resolution**, even in **color version**, for the premium model HT64.

In the summary table you can find all the features that make this innovative set of professional instruments unique and valuable.

## Functions

	HT64	HT63	HT62	HT61	HT60
TRMS Measurements	•	•	•	•	•
Color display	•	-	-	-	-
AC/DC Voltage	• AC+DC	•	•	•	•
AC/DC Current	•	•	-	-	-
LoZ voltage measurement	•	•	•	•	•
Resistance/Continuity Test	•	•	•	•	-
Frequency	•	•	•	•	•
Capacity	•	•	•	•	•
Duty cycle	•	•	•	-	•
Diode test	•	•	•	•	•
Temperature probe type K	•	•	•	•	•
Reading 4-20mA%	•	•	•	-	•
Lettura 4-20mA%	•	•	-	-	-
Data HOLD	•	•	•	•	•
MAX/MIN/AVG	•	• Max/Min	• Max/Min	• Max/Min	-
PEAK	• 1ms	• 1ms	-	-	-
Relative Measurement	•	•	•	•	•
Autorange	•	•	•	•	•
Backlight	•	•	•	•	•
Bargraph	•	•	•	•	-
Data loggers and graph	•	-	-	-	-
Internal memory	•	-	-	-	-
Auto Power OFF	•	•	•	•	•

## Main features

<b>Display:</b>	4 digit LCD, 4000 pixels ( <b>HT60</b> ) 4½ digit LCD, 6000 pixels ( <b>HT61, HT62</b> ) 4½ digit LCD, 60000 pixels ( <b>HT63</b> ) Color 4 4½ digit TFT, 6000 pixels ( <b>HT64</b> )
<b>Power supply:</b>	1x9V battery type 6F22 ( <b>HT60, HT61, HT62</b> ) 4x1.5 V batteries type AAA LR03 ( <b>HT63</b> ) 1x7.4V rechargeable Li-ION battery ( <b>HT64</b> )
<b>Auto Power OFF:</b>	after 30 minutes of non-use ( <b>HT60</b> ) after 15 minutes of non-use ( <b>HT61, HT62, HT63</b> ) 5min ÷ 60 min of non-use ( <b>HT64</b> )
<b>Safety:</b>	IEC/EN61010-1
<b>Measurement category:</b>	CAT IV 600V - CAT III 1000V
<b>Level of pollution:</b>	2
<b>Max operating altitude:</b>	2000m
<b>Dimensions (LxWxH):</b>	175x85x55mm
<b>Weight (batteries included):</b>	about 400 g

## Included accessories

4324-2	Pair of test leads with 2/4mm tip
TK101	Type K wire probe ( <b>HT60, HT62, HT63, HT64</b> )
T10	Type K Probe adapter
A64	Power supply + adapter ( <b>HT64</b> )
Calibration certificate ISO 9000	( <b>HT61, HT62, HT63, HT64</b> ) Batteries, user manual and transport bag

## Technical specifications

	HT64	HT63	HT62	HT61	HT60
<b>DC Voltage</b>					
Reading range:	0.1mV ÷ 1000V	0.1mV ÷ 1000V	0.1mV ÷ 1000V	0.1mV ÷ 1000V	1mV ÷ 600V
Standard accuracy:	±(0.1%reading+5digits)	±(0.9%reading+5digits)	±(1.0%reading+2digits)	±(1.0%reading+2digits)	±(1.2%reading+2digits)
<b>AC Voltage</b>					
Reading range:	0.1mV ÷ 1000V	0.1mV ÷ 1000V	1mV ÷ 1000V	1mV ÷ 1000V	1mV ÷ 600V
Standard accuracy:	±(0.9%reading+5digits)	±(1.0%reading+5digits)	±(1.0%reading+8digits)	±(1.0%reading+8digits)	±(1.2%reading+4digits)
<b>DC Current</b>					
Reading range:	0.1µA ÷ 10A	0.1µA ÷ 10A	0.1µA ÷ 10A	0.1µA ÷ 10A	-
Standard accuracy:	±(0.9%reading+5digits)	±(1.5%reading+5digits)	±(1.0%reading+3digits)	±(1.0%reading+3digits)	-
<b>AC Current</b>					
Reading range:	0.1µA ÷ 10A	0.1µA ÷ 10A	0.1µA ÷ 10A	0.1µA ÷ 10A	-
Standard accuracy:	±(1.2%reading+5digits)	±(2.5%reading+5digits)	±(1.5%reading+3digits)	±(1.5%reading+3digits)	-
<b>Resistance and continuity test</b>					
Reading range:	0.1Ω ÷ 60MΩ	0.1Ω ÷ 60MΩ	0.1Ω ÷ 60MΩ	0.1Ω ÷ 60MΩ	0.1Ω ÷ 40MΩ
Standard accuracy:	±(0.8%reading+5digits)	±(1.2%reading+5digits)	±(1.0%reading+4digits)	±(1.0%reading+4digits)	±(1.0%reading+2digits)
Buzzer:	<25Ω	<35Ω	<100Ω	<100Ω	<30Ω
<b>Frequency</b>					
Reading range:	0.001Hz ÷ 1MHz	0.001Hz ÷ 1MHz	0.001Hz ÷ 1MHz	0.001Hz ÷ 1MHz	0.001Hz ÷ 10MHz
Standard accuracy:	±(0.09%reading+5digits)	±(1.0%reading+2digits)	±(0.1%reading+1digit)	±(0.1%reading+2digits)	±(1.2%reading+3digits)
<b>Capacity</b>					
Reading range:	0.01nF ÷ 6mF	0.01nF ÷ 6mF	0.01nF ÷ 1000µF	-	0.01nF ÷ 100µF
Standard accuracy:	±(1.2%reading+8digits)	±(2.5%reading+10digits)	±(3.5%reading+4digits)	-	±(3.0%reading+5digits)
<b>Duty Cycle</b>					
Reading range:	0.1% ÷ 99.9%	20% ÷ 80%	0.1% ÷ 99.9%	0.1% ÷ 99.9%	0.5% ÷ 99.9%
Standard accuracy:	±(1.2%reading+2digits)	±(1.0%reading+5digits)	±(1.2%reading+2digits)	±(1.2%reading+2digits)	±(1.2%reading+2digits)
<b>Temperature probe type K</b>					
Reading range:	-40°C ÷ 1350°C	-40°C ÷ 760°C	-45°C ÷ 750°C	-	-20°C ÷ 760°C
Standard accuracy:	±(1.0%reading + 3°C)	±(2.0%reading + 3°C)	±(3.5%reading + 5°C)	-	±(3.0%reading + 5°C)

ORDER CODE **H900JUP1** / **H900NEP**

# JUPITER NEPTUNE

PROFESSIONAL DEVICE  
FOR ELECTRIC SAFETY VERIFICATIONS  
ACCORDING TO IEC/EN61557-1 WITH ADVANCED  
MULTIMETER FUNCTIONS

The new models **JUPITER** and **NEPTUNE** are **innovative** devices which, further to being used as powerful multimeters for **TRMS** measurements, allow performing electric safety tests (**RCD**, **Ra**, **Loop**, **Insulation** and **Continuity**) according to standard **IEC/EN61557-1**. They comply to **CAT IV 600V**, with **autorange** function available in all models, as well as the **backlit display**. The design is extremely modern, attractive and ergonomic to offer the best possible ease of use.



ORDER CODE **H9000MER**

# MERCURY

PROFESSIONAL MULTIMETER  
WITH IN-BUILT THERMAL CAMERA

Model **MERCURY** is a digital **TRMS** multimeter which mainly measures **AC/DC voltage** up to **1000V** and **AC/DC current** up to **10A**. Among its important functions, this device features mode **AC+DC**, which is used to also detect direct components possibly overlapping the alternate signal, and measurement of currents with the **use of standard and flexible clamp transducers\*** (accessory **F3000U**) directly connected to it. A **thermal camera** with resolution **80x80pxl** is also built in the device in order to allow for a possible simultaneous reading of electric and thermal values of the item to be tested. **MERCURY** is also provided with a **Data Logger** function which allows it to perform and **save recordings** of every parameter which can be measured by the device and **graphically display the trend of the values**. The device allows saving pictures in **BMP** format on a micro SD card (provided), and also has a **Bluetooth** function to connect to mobile devices (tablets/smartphones) through the **dedicated APP HTMercury**, to create reports to share measured results.



\* Standard HT96U and flexible F3000U.

## Functions and characteristics

	JUPITER	NEPTUNE
<b>Multimeter section</b>		
DC / AC, AC+DC TRMS voltage	•	•
DC / AC / AC+DC TRMS voltage with low impedance (LoZ)	•	•
AC TRMS current up to 3000A with optional flexible clamp transducer F3000U	•	•
Automatic recognition of AC and DC quantities	•	•
Inrush current (Dynamic INRUSH - DIRC)	•	•
Current/voltage harmonics up to the 25 <sup>th</sup> and THD% calculation	•	•
Resistance and continuity with buzzer	•	•
Current and voltage frequency	•	•
MAX/MIN/PEAK/HOLD functions	•	•
9999 measuring spots	•	•
Auto-Power-Off function	•	•
Bargraph function	•	•
Funzione bargraph	•	•
<b>Electric verification section</b>		
Overall earth resistance L-PE without RCD tripping	•	-
Loop impedance L-L, L-N and calculation of assumed short-circuit current	•	-
Measurement of tripping time on General RCDs type A and AC (30mA, 100mA, 300mA)	•	-
Measurement of tripping current on General RCDs type A and AC (30mA)	•	-
Phase sequence with 1 terminal	•	•
Insulation with test voltage 50, 100, 250, 500, 1000V with PI and DAR calculation	-	•
Continuity of protective conductors with 200mA	-	•

## Included accessories

C2065	Three wire cable Red, Black, Green with Schuko plug ( <b>JUPITER</b> )
4324-2	Pair of test tips Red/Black 2/4mm straight banana
YABAT0001HT0	Alkaline battery 1.5V, type AAA, IEC LR03, 4 pcs
YABRS0002HT0	Carrying bag
YAMUM0066HT0	User manual on CD-ROM
YAMUM0065HT0	Quick reference guide
	Calibration certificate ISO9000

## Optional accessories

606-IECN	Connector with magnetic terminal
F3000U	AC flexible clamp with 30/300/3000A full scales
HT96U*	AC current clamp with 1/100/1000A full scales
HT97U*	AC current clamp with 10/100/1000A AC full scales
HT98U*	DC current clamp with 1000A full scale
HT4006	AC/DC current clamp with 40/400A full scales
NOCANBA	Hypertac-to-banana adapter
5004-IECR	Red alligator clip
5004-IECN	Black alligator clip

The standard accessories can be different depend on countries.  
\* Adapter NOCANBA required.

## Functions and characteristics

- DC voltage
- AC and AC+DC TRMS voltage
- DC current
- AC and AC+DC TRMS current
- AC and AC+DC TRMS current with standard clamp transducers
- AC TRMS current with flexible clamp transducer F3000U
- "Voltsense" for AC voltage detection without contact
- Resistance and Continuity test
- Diode, Capacitance and Frequency tests
- Temperature with K-type probe
- Infrared temperature with in-built thermal camera
- In-built datalogger
- Data HOLD
- MIN/MAX/PEAK
- Relative measurement
- Bargraph
- Backlight
- Input protective fuses
- Auto Power OFF

## Main features

<b>Power supply:</b>	1x7.4V rechargeable Li-Ion battery, 1200mAh
<b>Safety:</b>	IEC/EN61010-1
<b>Measurement category:</b>	CAT IV 600V, CAT III 1000V
<b>Insulation:</b>	double insulation
<b>Pollution level:</b>	2
<b>Mechanical protection index:</b>	IP65
<b>Max operating altitude:</b>	2000m
<b>Size (LxWxH):</b>	190x75x55mm
<b>Weight (batteries included):</b>	approx 555g

## Included accessories

F3000U	Flexible clamp with full scale 30/300/3000A AC and banana connectors
4324-2	Pair of Red/Black banana connectors with 2/4mm tip
BATMCY	Spare battery Li-Ion 7.4V 1500mAh
A0MCY	Multiplug power supply for MERCURY with recharging base
	Micro SD card 8GB,10x
B0MCY	Carrying bag
	Alkaline battery type AAA IEC LR03, 2 pieces ( <b>for F3000U</b> )
	Type K bead probe + adapter
	User Manual
	Calibration certificate ISO9000

## Optional accessories

HT96U**	Standard clamp with full scale 1/100/1000A AC and Hypertac connector
HT97U**	Standard clamp with full scale 10/100/1000A AC and Hypertac connector
HT98U**	Standard clamp with full scale 1000A DC and Hypertac connector
HT4006	Standard clamp with full scale 40/400A AC/DC and banana connectors

The standard accessories can be different depend on countries.  
\* Adapter NOCANBA required.



ORDER CODE HR000005 | HR000011

## IRONMETER FLASHMETER

TRMS MULTIMETERS WITH BUILT-IN LED TORCH  
AND TOTAL AUTORANGE (FLASHMETER)

IRONMETER is the true tester for construction sites, realized with a very **sturdy structure** capable of resisting every shock, ready to rise again after any fall (**even from 3 m high**) and keep working with the very same precision and reliability. It is provided with all of the typical functions of everyday use, but also features an **in-built LED torch** to illuminate poorly lit environments, when necessary. FLASHMETER, according to the quantity present at the input, **automatically switches** between voltage and resistance measurement.



ORDER CODE HR000039

## HT39

TRMS MULTIMETER 4000 DOTS  
WITH SERIAL INTERFACE RS-232

HT39 is a **professional TRMS** multimeter which mainly measures **AC/DC voltage** and **AC/DC current in total Autorange**, further to **Peak values**, useful in **industrial verifications**. The device is also provided with **serial interface RS-232 for PC connection** and **real-time** display of the quantities to be measured. Under these conditions it is possible (through optional dedicated software) to activate and save recordings of the parameters, with programmable sampling period. HT39 is designed to reach category **CAT III 1000V** and **CAT IV 600V** and is provided with a fuse with high breaking capacity on the current input.

### Functions

	IRONMETER	FLASHMETER
TRMS Measurements	•	•
Automatic selection of measurements	-	•
AC/DC Voltage	• (600V)	• (600V)
AC/DC Current	• (10A)	-
Resistance/Continuity Test	•	•
Detection of AC voltage without contact	•	•
Frequency	•	-
Capacitance, Diode test	•	-
Duty cycle	•	-
Built-in flashlight	•	•
Auto-HOLD function	-	•
Autorange	•	•
Backlight	•	•
Auto Power OFF	•	•

### Main features

Power supply:	2x1.5V batteries type AAA IEC LR03
Safety:	IEC/EN61010-1
Measurement category:	CAT III 600V
Insulation:	double insulation
Pollution level:	2
Max operating altitude:	2000m
Display:	4 LCD, 4000 dots, decimal sign and point
Protection fuses:	Yes ( <b>IRONMETER</b> )
Dimensions (LxWxH):	120x65x45mm ( <b>IRONMETER</b> ) 140x75x40mm ( <b>FLASHMETER</b> )
Weight (batteries included):	200g ( <b>IRONMETER</b> ) 220g ( <b>FLASHMETER</b> )

### Included accessories

4324-2	Pair of test leads with tip 2
	Batteries
	Transport bag
	User Manual

### Functions

- TRMS Measurements
- DC Voltage: 1000V
- AC Voltage: 750V
- AC/DC Current: 10A
- Resistance/Continuity Test
- Frequency
- Capacitance and Diode test
- Data HOLD, MAX/MIN/PEAK
- Relative measurement
- RS-232 interface
- Backlight
- Bargraph
- Auto Power OFF

### Included accessories

	Pair of test leads
	Batteries
	Protective case with support
	User Manual

### Main features

Power supply:	1x9V batteries type 6F22
Safety:	IEC/EN61010-1
Measurement category:	CAT IV 600V, CAT III 1000V
Insulation:	double insulation
Pollution level:	2
Max operating altitude:	2000m
Display:	4 LCD, 4000 dots, decimal sign and point
Protection fuses:	Yes
Dimensions (LxWxH):	164x82x44mm
Weight (batteries included):	400g

### Optional accessories

B80	Soft carrying bag
SW39	Windows software + RS-232 cable



ORDER CODE **HR000701**

# HT701

PROFESSIONAL MULTIMETER  
FOR INSULATION MEASUREMENT UP TO 1000V

Professional TRMS multimeter with **10.000 measuring spots** and measurement of **insulation resistance** with **selectable test voltage** between **50, 100, 250, 500, 1000VDC**. HT701 is capable of saving the results of measurements in its **internal memory** and has been designed in compliance with **safety standard IEC/EN61010-1** in CAT III 1000V and CAT IV 600V with double protective insulation.



**PR701**  
Remote switch  
probe for insulation  
measurements



ORDER CODE **HR000401**

# HT401

PROFESSIONAL MULTIMETER FOR AC+DC  
TRMS MEASUREMENT AND LoZ INPUT

Professional digital multimeter in TRMS with **6000 measuring spots** which mainly carries out measurements of **AC/DC voltage** and **AC/DC current**. Among the many functions of the device there are the **AC+DC mode**, used to consider also **continuous components possibly overlapping the alternate signal** and AC voltage measurements in conditions of **low impedance (LoZ)** in order to **reduce the influences** when measuring between adjacent conductors.



## Functions

- DC/AC TRMS voltage
- DC/AC TRMS current
- Insulation with test voltage up to 1000VDC
- Resistance and Continuity test
- Frequency
- Diode test
- Capacity
- Temperature with K-type probe
- Internal memory for measured data saving
- Data HOLD, MAX/MIN, Relative measurement
- Automatic/Manual Range
- Backlight, Bargraph
- Auto Power Off

## Technical Specifications

- DC voltage**
- Measuring range: 0.01mV ÷ 1000V
  - Resolution: 0.01mV ÷ 0.1V
  - Basic accuracy: ±(0.08%reading + 2 digits)
  - Protection: 1000V DC/ACrms
- AC TRMS voltage**
- Measuring range: 0.01mV ÷ 1000V
  - Resolution: 0.01mV ÷ 0.1V
  - Basic accuracy: ±(0.9%reading + 3 digits)
  - Protection: 1000V DC/ACrms
- DC current**
- Measuring range: 0.01mA ÷ 400mA
  - Resolution: 0.01mA ÷ 0.1A
  - Basic accuracy: ±(0.2%reading + 2 digits)
  - Protection: Fuse F440mA/1000V
- AC TRMS current**
- Measuring range: 0.01mA ÷ 400mA
  - Resolution: 0.01mA ÷ 0.1mA
  - Basic accuracy: ±(1.5%reading + 2 digits)
  - Protection: Fuse F440mA/1000V

- Resistance and Continuity test**
- Measuring range: 0.1Ω ÷ 40MΩ
  - Resolution: 0.1Ω ÷ 0.01MΩ
  - Basic accuracy: ±(0.5%reading + 2 digits)
  - Continuity test: <30Ω
  - Protection: 1000V DC/ACrms
- Frequency**
- Measuring range: 0.01Hz ÷ 100kHz
  - Resolution: 0.01Hz ÷ 0.01kHz
  - Basic accuracy: ±(0.1%reading + 5 digits)
  - Protection: 1000V DC/ACrms

- Capacity**
- Measuring range: 0.001μF ÷ 40mF
  - Resolution: 0.001μF ÷ 0.01mF
  - Basic accuracy: ±(1.2%reading + 2 digits)
  - Protection: 1000V DC/ACrms
- Temperature with K-type probe**
- Measuring range: -200°C ÷ 1200°C
  - Resolution: 0.1°C
  - Basic accuracy: ±(1.0%reading + 1°C)
  - Protection: 1000V DC/ACrms

- Insulation measurement**
- Test voltage: 50, 100, 250, 500, 1000VDC
  - Measuring range: 2MΩ ÷ 22GΩ
  - Resolution: 0.001MΩ ÷ 0.1GΩ
  - Basic accuracy: ±(1.5%reading + 5 digits)
  - Protection: 600V DC/ACrms

## Functions

- DC/AC TRMS voltage
- DC/AC TRMS current
- AC+DC measurements
- AC voltage measurement with low impedance "LoZ"
- "VoltSense" for AC voltage detection without contact
- Resistance and Continuity test
- Frequency
- Diode test
- Capacity
- Temperature with K-type probe
- Data HOLD, MAX/MIN/PEAK
- Relative measurement
- Automatic/Manual Range
- Backlight, Bargraph
- Auto Power Off

## Technical Specifications

- DC voltage**
- Measuring range: 0.01mV ÷ 1000V
  - Resolution: 0.01mV ÷ 0.1V
  - Basic accuracy: ±(0.08%reading + 2 digits)
  - Protection: 1000V DC/ACrms
- AC TRMS voltage**
- Measuring range: 0.01mV ÷ 1000V
  - Resolution: 0.01mV ÷ 0.1V
  - Basic accuracy: ±(0.8%reading + 5 digits)
  - Protection: 1000V DC/ACrms
- DC current**
- Measuring range: 0.01mA ÷ 10A
  - Resolution: 0.01mA ÷ 0.01A
  - Basic accuracy: ±(0.8%reading + 3 digits)
  - Protection: Fuse F440mA/1000V - Fuse F11A/1000V

- AC TRMS current**
- Measuring range: 0.01mA ÷ 10A
  - Resolution: 0.01mA ÷ 10A
  - Basic accuracy: ±(1.2%reading + 3 digits)
  - Protection: Fuse F440mA/1000V - Fuse F11A/1000V
- Resistance and Continuity test**
- Measuring range: 0.1Ω ÷ 40MΩ
  - Resolution: 0.1Ω ÷ 0.01MΩ
  - Basic accuracy: ±(0.8%reading + 2 digits)
  - Continuity test: <30Ω
  - Protection: 1000V DC/ACrms

- Frequency**
- Measuring range: 0.01Hz ÷ 100kHz
  - Resolution: 0.01Hz ÷ 0.01kHz
  - Basic accuracy: ±(0.1%reading + 2 digits)
  - Protection: 1000V DC/ACrms

- Capacity**
- Measuring range: 0.001μF ÷ 10mF
  - Resolution: 0.001μF ÷ 0.01mF
  - Basic accuracy: ±(1.2%reading + 2 digits)
  - Protection: 1000V DC/ACrms

- Temperature with K-type probe**
- Measuring range: -40°C ÷ 400°C
  - Resolution: 0.1°C
  - Basic accuracy: ±(1.0%reading + 10 digits)
  - Protection: 1000V DC/ACrms

## Main features

- Display:** LCD, 10000 dots
- Power supply:** 4x1.5V alkaline batteries type AA LR6
- Auto Power Off:** after 20 minutes' idling
- Safety:** IEC/EN61010-1, IEC/EN61557-1-2
- Measurement category:** CAT III 1000V, CAT IV 600V
- Insulation:** double insulation
- Pollution level:** 2
- Max height:** 2000mm
- Size (LxWxH):** 207x95x52mm
- Weight (batteries included):** 630g

## Main features

- Display:** LCD, 4 digits, 6000 dots
- Power supply:** 1x9V alkaline battery type 6F22
- Battery life:** 150 hours
- Auto Power Off:** after 20 minutes' idling
- Safety:** IEC/EN61010-1
- Measurement category:** CAT III 1000V, CAT IV 600V
- Insulation:** Double insulation
- Pollution level:** 2
- Max height:** 2000mm
- Size (LxWxH):** 190x94x48mm
- Weight (batteries included):** 460g

## Included accessories

4413-2	Pair of test leads
YAAMK0001HT0	Pair of alligator clips
PR701	Probe for insulation measurement
TK101	K-type wire probe
T10	Adapter for K-type probes
	BeIt with magnetic terminal
	Protective case, battery and user manual

## Included accessories

4413-2	Pair of test leads
TK101	K-type wire probe
T10	Adapter for K-type probes
	Protective case, battery and user manual



ORDER CODE **HR000712**

# HT712

DIGITAL MULTIMETER WITH MEASUREMENT OF VOLTAGE AND PHASE SEQUENCE WITH 1 LEAD

Model HT712 has been designed to practically and functionally perform the basic functions of a common digital tester in an extremely easy and quick way, thanks to its narrow and long structure. The device measures **AC/DC voltage**, **Frequency**, **Resistance** and performs **Continuity tests**. Thanks to the innovative and patented 1-terminal method, it is possible to measure Voltage and Frequency, while the **Phase sequence** can also be measured directly on the isolating sheaths of the cables

## Functions

- TRMS measurement
- DC/AC voltage
- AC voltage with 1 terminal
- Automatic recognition of AC/DC
- Resistance and Continuity test
- Frequency
- Frequency with 1 terminal
- Phase sequence with 1 terminal
- Data HOLD
- LED indications OK/FAIL
- Autorange
- Measurement category (@ 600V)
- AutoPowerOFF

## Main features

Display:	LCD, 3 1/2 digits, 4000 dots
Power supply:	2x1.5V batteries type AAA
Auto Power OFF:	after 5 minutes' idling
Safety:	IEC/EN 61010-1
Insulation:	double insulation
Pollution level:	2
Size (LxWxH):	250x51x30mm
Weight (batteries included):	150g



## Technical Specifications

### DC voltage

- Measuring range: 0.5V ÷ 600V
- Resolution: 0.1V
- Basic accuracy: ±(0.8%rdg + 1digit)

### AC voltage with 2 terminals

- Measuring range: 1.5V ÷ 600V
- Resolution: 0.1V
- Basic accuracy: ±(1.5%rdg + 5digits)

### Resist. and Continuity test

- Measuring range: 1Ω ÷ 1500Ω
- Resolution: 1Ω
- Basic accuracy: ±(1.0%rdg + 5digits)
- Continuity: <100Ω

### Frequency with 2 terminals

- Measuring range: 40Hz ÷ 69Hz
- Resolution: 0.1Hz
- Basic accuracy: ±(0.5%rdg + 1digit)

### Phase sequence with 1 terminal

- Measuring range: 100V ÷ 600V
- Resolution: 1V



## Included accessories

P711EU	Red measuring lead
P710EU	Black measuring lead
B700	Holster
	ISO9000 calibration certificate
	Batteries and user manual





# HT211 | HT21 | HT25N

COMPACT DIGITAL MULTIMETERS IN CAT III



Models HT21, HT210 and HT25N are compact digital multimeters capable of carrying out mainly measurements of AC/DC voltage up to 600V and DC current up to 10A (HT25N) with complementary functions of Resistance, Continuity test, Diode test and 9V and 1.5V alkaline battery tests. These devices have been designed in compliance with safety standard IEC/EN61010-1 with double protective insulation in CAT III 600V. They are provided with a wide LCD display with backlight and each function can be selected through its relevant switch. A further function of this device is Data HOLD to freeze data on the display and REL for relative measurements, HT210 also offers the possibility of measuring temperature with the provided K-type probe, but also with the optional TK1xx probes.

## Functions

	HT211	HT21	HT25N
TRMS	•	-	-
AC / DC voltage	•	•	•
AC / DC current	•	-	• DC
Resistance / Continuity test	•	•	•
Frequency	•	•	-
Capacity	•	•	-
Diode test	•	•	•
Duty Cycle	•	•	-
Temperature with K-type probe	•	-	-
Battery test 1.5V/9V	-	-	•
Data HOLD	•	•	•
Relative measurement	•	•	-
Backlight	•	•	•
Auto Power OFF	•	•	•

## Main features

<b>Display:</b>	LCD 3½ digits, 2000 dots ( <b>HT25N</b> ) 4 digits LCD display, 4000 dots, decimal sign and point ( <b>HT21</b> ) 3¾ digits LCD display, 4000 dots plus decimal sign and point ( <b>HT211</b> )
<b>Power supply:</b>	1x9V batteries type IEC 6F22 ( <b>HT21, HT25N</b> ) 2x1.5V batteries type AAA IEC LR03 ( <b>HT211</b> )
<b>Auto Power OFF:</b>	after 15 minutes' idling ( <b>HT211</b> ) after 30 minutes' idling ( <b>HT21</b> )
<b>Safety:</b>	IEC/EN 61010-1
<b>Measurement category:</b>	CAT III 600V
<b>Pollution level:</b>	2
<b>Insulation:</b>	double insulation
<b>Size (LxWxH):</b>	145x70x60mm
<b>Weight (batteries included):</b>	210g ( <b>HT21, HT211</b> ), 255g ( <b>HT25N</b> )

## Included accessories

KIT4000A	Pair of test leads
	Adapter T10 + K-type wire probe ( <b>HT211</b> )
	Soft carrying bag for ( <b>HT21, HT211</b> )
	Batteries and user manual

## Technical Specifications

	HT21 - HT211	HT25N
<b>DC voltage</b>		
Measuring range:	20mV ÷ 600V	1mV ÷ 600V
Resolution:	0.001V÷1V	0.1mV÷1V
Basic accuracy:	±(1.2%reading + 2digits)	±(1%reading+ 3digits)
Protection:	600VDC	200Vrms for scale 200.0mV 600V AC/DC
<b>AC voltage</b>		
Measuring range:	20mV ÷ 600V	1V ÷ 600V
Resolution:	0.001V÷1V	0.1V ÷ 1V
Basic accuracy:	±(1.2%reading + 4digits)	±(1.5%reading+12digits)
Protection:	600VAC	600VAC
<b>DC current</b>		
Measuring range:	400.0µA ÷ 10A AC/DC ( <b>HT211</b> )	2mA ÷ 10A DC
Resolution:	0.1µA ÷ 0.01A ( <b>HT211</b> )	1µA ÷ 0.01A
Basic accuracy:	±(1%reading+3digits) ( <b>HT211</b> )	±(1.5%reading+3digits)
Protection:	Rapid fuse 500mA / 600V Quick fuse 10A / 600V for scale 10A ( <b>HT211</b> )	Rapid fuse 200mA / 600V Quick fuse 10A / 600V for scale 10A
<b>Battery test</b>		
Measuring range:	-	1.5 / 9V
Resolution:	-	1.5V=1mV / 9V=10mV
Basic accuracy:	-	±(1.5%reading+3digits)
Protection:	-	1.5V=100mA / 9V=6mA

	HT21 - HT211	HT25N
<b>Resistance and Continuity test</b>		
Measuring range:	20 ÷ 40MΩ	1Ω ÷ 2MΩ
Resolution:	0.1Ω ÷ 0.01MΩ	0.1Ω ÷ 1KΩ
Basic accuracy:	±(1%reading + 2digits)	±(1.2%reading + 4digits)
Continuity test	<150Ω	<60Ω
Protection:	250Vrms	250Vrms < 15sec
<b>Frequency</b>		
Measuring range:	25mHz ÷ 10MHz	-
Resolution:	0.001Hz ÷ 10KHz	-
Basic accuracy:	±(1.2%reading + 3digits)	-
Protection:	250Vrms	-
<b>Capacity</b>		
Measuring range:	0.2nF ÷ 100µF	-
Resolution:	0.01nF ÷ 0.1µF	-
<b>Diode test</b>		
Resolution:	1mV	1mA
MAX Open-circuit voltage:	1.5VDC	2.8VDC
Basic accuracy:	±(10%reading+5digits)	ND
<b>Duty Cycle</b>		
Measuring range:	0.5% ÷ 99%	-
Resolution:	0.1%	-
Basic accuracy:	±(1.2%reading + 2digits)	-
Protection:	250Vrms	-
<b>Temperature with K probe (only HT211)</b>		
Measuring range:	-20°C ÷ 760°C	-
Resolution:	0.1°C ÷ 1°C	-
Basic accuracy:	±(3%reading + 5°C)	-



ORDER CODE **HR00012**  
**HT12**

POCKET DIGITAL MULTIMETER WITH INTEGRATED  
AC/DC 60A FORK CLAMP METER

Model HT12 is a **super compact** digital multimeter capable of carrying out measurements of **Voltage up to 600V**, **AC/DC current up to 60A** with **integrated clamp sensor** and complementary functions of **Resistance**, **Continuity test** and **Frequency**. This device has been designed in compliance with **safety standard IEC/EN61010-1** with double protective insulation in **CAT III 300V**, **CAT II 600V**. Further functions are **Data HOLD** to freeze data on the display and the **Auto Power OFF** function after 10 minutes' idling, in order to preserve the internal battery. The device is housed in a **protective case** which is also used to rewind the test leads.



ORDER CODE **HR00014D**  
**HT14D**

POCKET DIGITAL MULTIMETER

Model HT14D is a **compact** digital multimeter capable of carrying out mainly measurements of **AC/DC voltage up to 500V** and **DC current up to 200mA** with complementary functions of **Resistance**, **Diode test** and **9V alkaline battery test**. This device has been designed in compliance with **safety standard IEC/EN61010-1** with double protective insulation in **CAT III 300V**. HT14D is provided with a wide **LCD display** and each function may be selected through its relevant switch. A further function of this device is **Data HOLD** to freeze data on the display.



**Functions**

- DC/AC voltage
- AC/DC current integrated clamp sensor
- Resistance and continuity test with buzzer
- Current and voltage frequency
- Data HOLD
- Automatic / manual selection of measuring range
- Auto Power OFF

**Technical Specifications**

- DC voltage**
- Measuring range: 0mV ÷ 600V
  - Resolution: 0.001mV ÷ 0.1V
  - Basic accuracy: ±(1.5%reading + 4digits)
  - Protection against overcharge: 720VDC/AC for 10 seconds
- AC voltage**
- Measuring range: 0V ÷ 600V
  - Frequency band: 50Hz ÷ 400Hz
  - Resolution: 0.001V ÷ 1V
  - Basic accuracy: ±(1.5%reading + 5 digits)
  - Protection against overcharge: 720VDC/AC for 10 seconds

- AC/DC current integrated clamp sensor**
- Measuring range: 0A ÷ 60A
  - Resolution: 0.1A
  - Frequency range: 50Hz ÷ 60Hz
  - Basic accuracy: ±(2%reading + 5digits)
  - Protection against overcharge: 72A DC/AC for 10 seconds
- Resistance and Continuity test**
- Measuring range: 0Ω ÷ 34MΩ
  - Resolution: 0.1Ω ÷ 0.01MΩ
  - Basic accuracy: ±(1%reading + 3digits)
  - Protection against overcharge: 720VDC/AC for 10 seconds
  - Continuity buzzer: R<30Ω ± 10Ω

- Frequency**
- Current measuring range: 0Hz ÷ 10kHz
  - Voltage measuring range: 0Hz ÷ 300kHz
  - Basic accuracy: ±(0.1%reading + 1digit)
  - Resolution: 0.001 kHz ÷ 0.01MHz
  - Protection against current overcharge: 72A DC/AC for 10 seconds
  - Protection against voltage overcharge: 720VDC/AC for 10 seconds

**Main features**

- Display:** LCD, 3½ digits, 3400 dots  
**Power supply:** 2x1.5V battery type AAA LR03  
**Auto Power OFF:** after 10 minutes' idling  
**Safety:** IEC/EN 61010-1  
**Measurement category:** CAT III 300V, CAT II 600V  
**Pollution level:** 2  
**Insulation:** double insulation  
**Size (LxWxH):** 128x87x24mm  
**Weight (batteries included):** 210g

**Included accessories**

- Anti-shock protection shell
- Integrated measuring leads and clamp meter
- Batteries and user manual

**Functions**

- DC/AC voltage
- DC current
- Resistance and Continuity test
- Diode test
- Battery test 9V
- Data HOLD

**Technical Specifications**

- DC voltage**
- Measuring range: 200mV ÷ 500V
  - Resolution: 0.1mV ÷ 1V
  - Basic accuracy: ±(0.5%rdg + 2digits)
- AC voltage**
- Range: 1V ÷ 500V
  - Resolution: 0.1V ÷ 1V
  - Basic accuracy: ±(1.2%rdg + 10digits)
- Resistance and Continuity test**
- Measuring range: 1Ω ÷ 2000Ω
  - Resolution: 0.1Ω ÷ 1kΩ
  - Basic accuracy: ±(0.8%rdg + 4digits)

- DC current**
- Measuring range: 2000µA ÷ 200mA
  - Resolution: 1µA ÷ 0.1mA
  - Basic accuracy: ±(1.2%rdg + 2digits)

**Main features**

- Display:** LCD, 3½ digits, 2000 dots  
**Power supply:** 1x12V batteries type MS21/MN21  
**Safety:** IEC/EN61010-1 double insulation  
**Insulation:** double insulation  
**Pollution level:** 2  
**Size (LxWxH):** 105x50x25mm  
**Weight (batteries included):** 100g

**Included accessories**

- KIT4000A Measuring leads
- Batteries and user manual

ORDER CODE HR000100 | HR000008 | HR000007 | HR000006

# HT10 | HT8 | HT7 | HT6

TWO-POLE MULTIFUNCTION TESTERS WITH IN-BUILT LED TORCH



YouTube



HT10, HT8, HT7 and HT6 are designed to carry out the measurements of a digital tester in a practical, quick and functional way thanks to their narrow and long structure, which allows carrying out measurements in any operating conditions. These devices carry out measurements of **AC/DC voltage** with **polarity indication**, **continuity tests** with buzzer and **phase sequence detection** with LED indications and **Display reading**. In addition HT8 and HT6 carry out diode tests, while HT10 and HT7 carry out measurements of AC voltage with low input impedance. HT10 performs **RCD 30mA testing** as well. All meters are provided with a **white LED torch** for use in poorly lit environments, and **comply with safety requirements** of standards IEC/EN61243-3:2014/VDE 0682 ensuring safe and reliable working conditions. The instruments indicate whether a dangerous voltage is present, even if there is no battery power supply or a failure of the main circuit. The instruments also comply with IEC/EN61010-1 and IEC/61010-2-030 in CAT IV 600V, CAT III 690V (HT10 CAT IV 600V, CAT III 1000V). Protection class IP64 (dust and splash-proof) and molded soft rubber grips make HT10, HT8, HT7 and HT6 heavy duty instruments ideal for the toughest jobs in domestic or industrial applications.



Use of the integrated LED torch.



Phase detection function through conductive button.



Multimeter function with display and LED indication.



Measurement of phase sequence.

## Functions

	HT10	HT8	HT7	HT6
AC/DC Voltage	• (1000V)	• (690V)	• (690V)	• (690V)
AC Voltage with 1 terminal	•	•	•	•
AC Voltage with low impedance input	•	-	•	-
Phase sequence	•	•	•	•
Continuity test with buzzer	•	•	•	•
Resistance measurement	•	-	-	-
Diode test	-	•	-	•
LED indications and sound notifications	•	•	•	•
LCD display	•	•	•	-
Integrated torch	•	•	•	•

## Main features

Display:	LCD, 4digits, 6900 dots ( <b>HT8</b> ) LCD, 3½ digits, 1999 dots ( <b>HT7, HT10</b> )
Power supply:	2x1.5V battery type AAA LRR03
Safety:	IEC/EN61010-1, IEC/EN61010-2-030 ( <b>HT8</b> ), IIEC/EN61243-3:2014
Measurement category:	CAT IV 600V - CAT III 690V ( <b>HT7, HT8</b> ) CAT IV 600V - CAT III 1000V ( <b>HT10</b> )
Pollution level:	2
Insulation:	double insulation
Size (LxWxH):	255x60x35mm ( <b>HT6, HT8</b> ) 240x78x40mm ( <b>HT7</b> ) 270x70x30mm ( <b>HT10</b> )
Weight (batteries included):	170g ( <b>HT6, HT8</b> ) 240g ( <b>HT7</b> ) 290g ( <b>HT10</b> )

## Technical Specifications

	HT10	HT8	HT7	HT6
<b>DC/AC voltage</b>				
Measuring range:	6V ÷ 1000V	10V ÷ 690V	6V ÷ 690V	12V ÷ 690V
Frequency band:	40Hz ÷ 400Hz	16Hz ÷ 400Hz	50Hz ÷ 60Hz	16Hz ÷ 400Hz
Resolution:	1V	0.1V	1V	1V
Basic accuracy:	±(3%reading + 5digits)	±(3%reading + 5digits)	±(1%rdg+3dgt) (DC) ±(1.5%rdg+5dgt) (AC)	In compliance with EN61243-3
Protection against overcharge:	1000VDC/AC	690VDC/AC	690VDC/AC	690VDC/AC
<b>AC voltage with 1 terminal</b>				
Measuring range:	100V ÷ 1000V	100V ÷ 690V	100V ÷ 690V	100V ÷ 690V
Frequency band:	50Hz ÷ 400Hz	50Hz ÷ 60Hz	50Hz ÷ 60Hz	50Hz ÷ 60Hz
Protection against overcharge:	1000VDC/AC	690VAC	690VAC	690VAC
<b>Phase sequence</b>				
Measuring range:	100V ÷ 1000V	120V ÷ 400V (Phase-Earth)	100V ÷ 690V	120V ÷ 400V (Phase-Earth)
Frequency band:	50Hz ÷ 60Hz	50Hz ÷ 60Hz	50Hz ÷ 60Hz	50Hz ÷ 60Hz
Protection against overcharge:	1000VDC/AC	690VAC	690VAC	690VAC
<b>Continuity test with LED and buzzer</b>				
Measuring range:	0Ω ÷ 400kΩ	0Ω ÷ 500kΩ	0Ω ÷ 200kΩ	0Ω ÷ 500kΩ
Test current:	<5µA	<7µA	<1µA	<7µA

## Included accessories

	Protection cap for lead, 2 pieces
	Adapter 4mm for lead, 2 pieces
PR9	Mobile lead ( <b>HT6, HT8</b> )
	Batteries and user manual

## Optional accessories

PR9	Mobile lead ( <b>HT6, HT8</b> )
B71	Carrying bag ( <b>HT7</b> )



# CLAMP METERS



## Power clamps

### Who?

- › Technicians and maintenance operators in the industry sector
- › Power Quality Professionals
- › Energy managers
- › Maintenance operator in the photovoltaic field

### Where?

- › Transformer cabinets
- › Electric switchboards
- › Electric motors
- › Measurements near inverters
- › Photovoltaic installations

### Why?

They carry out the main function of mobile equipment and, in this case, offer the possibility of quickly displaying quantities such as **Power, Cosphi, Harmonics, Inrush Currents (INRUSH)** which are functions generally carried out by proper power analyzers.

## AC/DC clamps

### Who?

- › Installers and electricians of industrial and domestic electric systems
- › Maintenance operators in the electric sector in general, and in the photovoltaic field

### Where?

- › Domestic and industrial electric systems
- › Electric panels
- › Electric motors
- › Photovoltaic installations

### Why?

Ordinary and preventive maintenance of distribution (also photovoltaic) systems is mainly based on ammetric absorption; in industrial systems it is good practice to use **TRMS** equipment.

## Leakage clamps

### Who?

- › Installers and maintenance operators in the domestic and industrial sector
- › Safety verification authorities of domestic and industrial electric systems

### Where?

- › Electric panels
- › Electric motors
- › Earthing systems

### Why?

A correct mapping of all leakage currents to earth can only be carried out with clamps like HT77N, capable of detecting currents as small as  $\mu\text{A}$ , and HT78 which, due to the exceptional size of its jaws, is suitable for tests on very big loads.



**MAIN MEASUREMENTS**

	AC								AC/DC				HARMONICS AND/OR POWER			LEAKAGE		
<b>TRMS</b>	•	•	-	-	-	•	•	•	•	•	-	•	•	•	•	•	•	•
Current measuring range	1000A	600A	600A	400A	600A	3000A	200A	300A	1000A	600A	400A	400A	1000A	400A	400A	10A (DC) 20A (AC)	3000A	100A
AC/DC current	• AC	• AC	• AC	• AC	• AC	• AC	• AC	• AC	•	•	•	•	• AC+DC	• AC	• AC	•	• AC	• AC
AC/DC voltage	•	•	•	•	•	-	•	-	•	•	•	-	•	•	•	•	-	-
Leakage current	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	• AC/DC	•	•
Frequency	-	•	-	•	-	-	-	-	-	-	-	-	•	•	•	-	-	-
Resistance and continuity test with buzzer	•	•	•	•	•	-	•	-	•	•	•	-	•	•	•	•	-	-
Capacitance	-	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diode test	-	•	•	•	•	-	-	-	•	•	•	-	-	-	-	-	-	-
Duty Cycle (%)	-	•	-	•	-	-	-	-	•	•	•	-	-	-	-	-	-	-
Temperature with K-type probe	-	•	-	•	-	-	-	-	•	•	•	-	-	-	-	-	-	-
Phase sequence and phase concordance	-	-	-	-	-	-	-	-	-	-	-	-	•	•	•	-	-	-
Automatic recognition of internal functions	-	-	-	-	-	-	•	-	-	-	-	-	-	-	-	-	-	-
<b>MAINS ANALYSIS</b>																		
AC/DC voltage, current measurement/recording	-	-	-	-	-	-	-	-	-	-	-	-	•*	•*	•*	-	-	-
AC/DC power measurement/recording	-	-	-	-	-	-	-	-	-	-	-	-	•*	•*	•*	-	-	-
AC/DC energy measurement/recording	-	-	-	-	-	-	-	-	-	-	-	-	•*	•*	•*	-	-	-
Cosphi, PF measurement/recording	-	-	-	-	-	-	-	-	-	-	-	-	•*	•*	•*	-	-	-
UI + THD% harmonics measurement/recording	-	-	-	-	-	-	-	-	-	-	-	-	•*	•*	•*	-	-	-
Inrush current measurement (INRUSH)	-	-	-	-	-	-	-	-	-	-	-	•	• Dynamic INRUSH	-	-	-	-	-

**ADDITIONAL CHARACTERISTICS**

Measurement category	CAT IV 600V CAT III 1000V	CAT IV 600V CAT III 1000V	CAT IV 600V CAT III 1000V	CAT III 600V	CAT III 600V	CAT IV 600V CAT III 1000V	CAT IV 600V CAT III 1000V	CAT III 300V	CAT IV 600V CAT III 1000V	CAT IV 600V CAT III 1000V	CAT III 600V	CAT III 300V	CAT IV 600V CAT III 1000V	CAT III 600V	CAT III 600V	CAT IV 300V	CAT II 600V CAT III 300V	CAT III 300V
Maximum cable diameter	45mm	30mm	30mm	30mm	30mm	110mm	16mm	20mm	45mm	30mm	30mm	20mm	45mm	30mm	30mm	23mm	108mm	40mm
Measuring counts	6000	6000	2000	4000	2000	3000	10000	4000	6000	6000	4000	4000	9999	10000	10000	5000	3200	6000
Backlight	•	•	•	-	•	•	•	•	•	•	-	•	•	•	•	•	-	•
Bargraph	•	•	•	-	-	-	-	-	•	•	-	-	-	-	-	-	-	-
Autorange	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Auto power off	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Contactless AC voltage detection	•	•	•	•	•	-	•	•	•	•	•	•	•	-	-	-	-	-
Data HOLD function	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MIN/MAX function	•	•	• MAX	-	• MAX	-	-	-	•	•	-	-	•	•	•	•	-	-
AVG function (AVERAGE)	-	-	-	-	-	-	-	-	-	-	-	-	-	•	•	-	-	-
PEAK function	•	•	-	-	-	-	-	-	•	•	-	-	•	•	•	-	-	-
Relative measurement (ZERO)	-	•	-	•	-	-	-	-	-	-	•	-	-	-	-	-	•	-
Low-pass filter for harmonic reduction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	• 150Hz	• 100Hz
Analogue output	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	•
Electrical parameter logging	-	-	-	-	-	-	-	-	-	-	-	-	•	-	-	-	-	-
Memory for data saving	-	-	-	-	-	-	-	-	-	-	-	-	•	-	-	-	-	-
PC / Smartphone or Tablet interface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Power supply	1x 9V 6F22	1x 9V 6F22	1x 9V 6F22	2x 1.5V AAA	1x 9V 6F22	2x 1.5V AAA	2x 1.5V AAA	2x 1.5V AAA	1x 9V 6F22	1x 9V 6F22	2x 1.5V AAA	2x 1.5V AAA	2x 1.5V AAA	2x 1.5V AAA	2x 1.5V AAA	2x 1.5V AAA	2x 1.5V AAA	2x 1.5V AAA
Size in mm (L x W x H)	252x88x44	215x74x43	215x74x43	200x66x37	197x70x40	280x120x25	193x54x31	160x55x30	252x88x44	215x74x43	200x66x37	160x55x30	252x88x44	205x64x39	205x64x39	206x76x34	341x194x52	200x70x40
Weight in grams (batteries included)	402	285	285	205	180	170	280	140	442	285	205	140	420	280	280	262	1900	265
Reference standard for safety	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1	IEC/ EN61010-1
<b>Order code</b>	<b>HP009019</b>	<b>HP009014</b>	<b>HP009012</b>	<b>HP004011</b>	<b>HP004010</b>	<b>HP030000</b>	<b>HP000100</b>	<b>HP007004</b>	<b>HP009021</b>	<b>HP009015</b>	<b>HP004013</b>	<b>HP007005</b>	<b>HP009020</b>	<b>HP004022</b>	<b>HP004020</b>	<b>HP000079</b>	<b>HP000078</b>	<b>HP00077N</b>



ORDER CODE **HP009019**  
**HT9019**

PROFESSIONAL CLAMP METERS  
AC 1000A TRMS, CAT IV 600V

Professional clamp meter HT9019 has been designed to measure **AC current up to 1000A and AC/DC voltage up to 1000V** in TRMS to reach **CAT IV 600V** according to standard **IEC/EN61010-1**. The clamp is provided with a wide display with **6000 measuring spots, backlight** and analogue **bargraph** to allow for a simple reading even in poorly lit environments. Clamp HT9019 is also provided with the auto power off function to preserve its own battery.



ORDER CODE **HP009014**  
**HT9014**

PROFESSIONAL CLAMP METER AC 600A TRMS, CAT IV 600V

Professional clamp meter HT9014 has been designed to measure **AC current up to 600A and AC/DC voltage up to 1000V TRMS** to reach **CAT IV 600V** and **CAT III 1000V** in compliance with standard **IEC/EN61010-1**. The clamp is provided with a wide **backlight display with 6000 measuring spots** and an auto power off function to preserve its battery.

**Functions**

- TRMS measurements
- AC current up to 1000A
- AC/DC voltage up to 1000V
- Resistance and Continuity test
- "VoltSense" for AC voltage detection
- Autorange
- Data HOLD
- MAX/MIN
- PEAK CURRENT (<10ms)
- Bargraph
- Backlight
- AutoPowerOFF

**Technical Specifications**

- DC voltage (Autorange)**
- Measuring range: 3mV ÷ 1000V
  - Resolution: 0.01mV ÷ 1V
  - Basic accuracy: ±(1.0%reading + 3digits)
  - Protection against overcharge: 1000VDC/ACrms
- AC TRMS voltage (Autorange)**
- Measuring range: 0.03V ÷ 1000V
  - Frequency band: 50Hz ÷ 400Hz
  - Resolution: 0.001V ÷ 1V
  - Basic accuracy: ±(1.0%reading + 4digits)
  - Protection against overcharge: 1000VDC/ACrms
- AC TRMS current**
- Measuring range: 0.3A ÷ 1000A
  - Frequency band: 50Hz ÷ 400Hz
  - Resolution: 0.01A ÷ 1A
  - Basic accuracy: ±(2.8%reading + 8digits)
  - Protection against overcharge: 1000Arms
- Resistance and Continuity test**
- Measuring range: 3Ω ÷ 60MΩ
  - Resolution: 0.1Ω ÷ 0.01MΩ
  - Basic accuracy: ±(1.0%reading + 5digits)
  - Continuity buzzer: <50Ω

**Included accessories**

YAAMK0000HTO	Pair of test leads
YABRS0000NNO	Soft carrying bag
	Batteries and user manual

**Functions**

- Measurements in TRMS, DC/AC voltage, AC current
- Resistance / Continuity test, Frequency
- "VoltSense" sensor
- Diode test, Temperature with K-type probe
- Capacity, Duty Cycle
- Autorange, Data HOLD, MAX/MIN
- PEAK CURRENT (<10ms)
- Relative measurement, Bargraph, Backlight, AutoPowerOFF

**Main features**

- Display:** LCD, 4 digits, 6000 dots  
**Conversion type:** TRMS  
**Power supply:** 1x9V battery type IEC 622 after 30 minutes' idling  
**Auto Power OFF:**  
**Clamp jaw internal diameter:** 30mm  
**Safety:** IEC/EN61010-1  
**Measurement category:** CAT IV 600V – CAT III 1000V  
**Size (LxWxH):** 210x75x45mm  
**Weight (batteries included):** 400g

**Included accessories**

YAAMK0000HTO	Pair of test leads
T10	Adapter for K-type wire probe
TK101	K-type wire probe
	Battery, User manual and Soft carrying bag

**Technical Specifications**

- DC voltage**
- Measuring range: 3mV ÷ 1000V
  - Resolution: 0.1V ÷ 1V
  - Basic accuracy: ±(1.0%reading + 3digits)
  - Protection: 1000VDC/AC
- AC voltage**
- Measuring range: 0.03V ÷ 1000V
  - Frequency band: 50 ÷ 400Hz
  - Resolution: 0.01V ÷ 1V
  - Basic accuracy: ±(1.0%reading + 10digits)
  - Protection: 600Vrms
- AC current**
- Measuring range: 0.3A ÷ 600A
  - Frequency band: 50 ÷ 400Hz
  - Resolution: 0.1A ÷ 1A
  - Basic accuracy: ±(2.8%reading + 8digits)
  - Protection: 600Arms
- Resistance and Continuity test**
- Measuring range: 3Ω ÷ 60kΩ
  - Resolution: 0.1Ω ÷ 0.01kΩ
  - Basic accuracy: ±(1.0%reading + 5digits)
  - Continuity test: <60Ω

- Capacity**
- Measuring range: 0.2nF ÷ 4mF
  - Resolution: 0.01µF ÷ 1µF
  - Basic accuracy: ±(2.5%reading + 5digits)
- Temperature with K-type probe**
- Measuring range: -20°C ÷ 760°C
  - Resolution: 0.1°C
  - Basic accuracy: ±(2.0%reading + 3°C)
- Frequency with test leads and clamp jaws**
- Measuring range: 0.5Hz ÷ 60kHz
  - Resolution: 0.01Hz ÷ 0.01kHz
  - Basic accuracy: ±(1.0%reading + 5digits)
  - Protection: 600A/600V



ORDER CODE **HP009012**

# HT9012

PROFESSIONAL CLAMP METER AC 600A, CAT IV 600V

Professional clamp meter HT9012 has been designed to measure **AC current up to 600A and AC/DC voltage up to 1000V** to reach **CAT IV 600V and CAT III 1000V** in compliance with standard **IEC/EN61010-1**. The clamp is provided with a wide **backlight display with 6000 measuring spots** and an auto power off function to preserve its battery.



ORDER CODE **HP004011**

# HT4011

CLAMP METER AC 400A

Clamp meter HT4011 has been designed to measure **AC current up to 400A and AC/DC voltage up to 600V** to reach **CAT III 600V** in compliance with standard **IEC/EN61010-1**. The clamp is provided with an internal sensor to detect AC voltage also without contact, through a red LED turning on. HT4011 also carries out measurements of **Resistance, Continuity tests, Frequency, Capacity, Diode test, Duty Cycle and Temperature with K-type probe**, among others. The clamp is also provided with the auto power off function to preserve its own battery.

## Functions

- DC/AC voltage
- AC current
- Resistance / Continuity test
- "Volsense" sensor
- Diode test
- Data HOLD
- MAX function
- Backlight
- AutoPowerOFF

## Main features

**Display:** LCD, 3½ digits, 2000 dots average value  
**Conversion type:** 1x9V battery type IEC 622  
**Power supply:** after 30 minutes' idling  
**AutoPowerOFF:** 30mm  
**Clamp jaw internal diameter:** IEC/EN61010-1  
**Safety:** CAT IV 600V – CAT III 1000V  
**Measurement category:** 210x75x45mm  
**Size (LxWxH):** 400g  
**Weight (batteries included):**



## Technical Specifications

### DC voltage

- Measuring range: 1mV ÷ 1000V
- Resolution: 0.1mV ÷ 1V
- Basic accuracy: ±(1%reading + 3digits)
- Protection: 1000V DC/AC

### AC voltage

- Measuring range: 1mV ÷ 1000V
- Frequency band: 50 ÷ 60Hz
- Resolution: 0.1mV ÷ 1V
- Basic accuracy: ±(1%reading + 4digits)
- Protection: 1000V DC/AC

### AC current

- Measuring range: 0.01A ÷ 600A
- Frequency band: 50 ÷ 60Hz
- Resolution: 1mA ÷ 1A
- Basic accuracy: ±(2.5%reading + 4digits)
- Protection: 600Arms

### Resistance and Continuity test

- Measuring range: 1Ω ÷ 20MΩ
- Resolution: 0.1Ω ÷ 0.01MΩ
- Basic accuracy: ±(1.0%reading + 5digits)
- Continuity buzzer: <100Ω



## Included accessories

YAAMK0000HT0	Pair of test leads
	Battery
	User manual and Soft carrying bag

## Functions

- AC current up to 400A
- AC/DC voltage up to 600V
- "Volsense" for AC voltage detection
- Resistance and continuity test with buzzer
- Frequency with Leads, Capacity, Diode test
- Duty Cycle (%)
- Temperature with K-type probe
- Autorange, Data HOLD, MAX/MIN/Relative measurement



## Main features

**Display:** LCD, 4 digits, 4000 dots average value  
**Conversion type:** 2x1.5V batteries type AAA LR03  
**Power supply:** after 30 minutes' idling  
**Auto Power OFF:** 30mm  
**Max diameter of clamp:** IEC/EN61010-1  
**Safety:** CAT III 600V  
**Measurement category:** double insulation  
**Insulation:** 2  
**Pollution level:** 200x66x37mm  
**Size (LxWxH):** 205g  
**Weight (batteries included):**



## Included accessories

KIT4000A	Pair of leads with 2mm tip
T10	Adapter for K-type wire probe
TK101	K-type wire probe
	Battery, User manual and Soft carrying bag



## Technical Specifications

### DC voltage (Autorange)

- Measuring range: 400mV ÷ 600V
- Resolution: 0.1mV ÷ 0.1V
- Basic accuracy: ±(0.8%reading + 2digits)
- Protection against overcharge: 600VDC/ACrms

### AC voltage (Autorange)

- Measuring range: 4V ÷ 600V
- Frequency band: 50Hz ÷ 400Hz
- Resolution: 0.001V ÷ 1V
- Basic accuracy: ±(1.8%reading + 8digits)
- Protection against overcharge: 600VDC/ACrms

### AC current

- Measuring range: 0.2A ÷ 400A
- Resolution: 0.01A ÷ 1A
- Frequency range: 50Hz ÷ 60Hz
- Basic accuracy: ±(2.5%reading + 8digits)
- Protection against overcharge: 400Arms

### Resistance and Continuity test

- Measuring range: 2Ω ÷ 40MΩ
- Resolution: 0.1Ω ÷ 0.01MΩ
- Basic accuracy: ±(1.0%reading + 5digits)
- Protection against overcharge: 600VDC/ACrms
- Continuity buzzer: <60Ω

### Capacity

- Measuring range: 0.2nF ÷ 400µF
- Resolution: 0.01nF ÷ 0.1µF
- Basic accuracy: ±(3.0%reading + 5digits)
- Protection against overcharge: 600VDC/ACrms

### Frequency and Duty Cycle

- Measuring range: 10Hz ÷ 10kHz
- Resolution: 0.01Hz ÷ 0.01kHz
- Basic accuracy: ±(1.5%reading + 2digits)
- Protection against overcharge: 600VDC/ACrms
- Duty Cycle: Measuring range 0.5% ÷ 99%;

### Temperature with K-type probe

- Measuring range: -20°C ÷ 760°C
- Resolution: 0.1°C ÷ 1°C
- Basic accuracy: ±(3%reading + 5°C)



ORDER CODE **HP004010**

# HT4010

CLAMP METER AC 600A

Clamp meter HT4010 can carry out measurements of **AC current up to 600A** and **AC/DC voltage, Resistance, Continuity** and **Diode test**. The device is provided with an internal sensor capable of detecting, through a LED turning on and a buzzer sounding, the presence of AC voltage in a spot without contact. This device complies with standard IEC/EN61010-1 in **CAT III 600V** and it is the ideal solution for measurements to be carried out both in domestic and in industrial environments.



ORDER CODE **HP030000**

# F3000

CLAMP METER WITH FLEXIBLE CLAMP JAWS  
AC 3000A

Professional clamp meter F3000 has been designed to measure **AC current up to 3000A** in **TRMS** in **total autorange** to reach **CAT IV 600V, CAT III 1000V** according to standard IEC/EN61010-1. The clamp is provided with innovative **flexible jaws** capable of reaching a **maximum diameter of 110mm** and allowing for an easy reading in any condition. The clamp is provided with a wide display with **3000 measuring spots**, **Data HOLD** function and **Backlight** to allow for a simple reading even in poorly lit environments. The clamp is also provided with the auto power off function to preserve its own battery.

## Functions

- AC current up to 600A
- AC/DC voltage up to 600V
- Detection of AC voltage without contact
- Resistance / Continuity test
- Diode test
- Data HOLD
- MAX
- Backlight
- Auto Power OFF

## Technical Specifications

### DC voltage

- Measuring range: 1mV ÷ 600V
- Resolution: 0.1mV÷1V
- Basic accuracy: ±(0.8%reading + 2 digits)
- Protection against overcharge: 600Vrms

### AC voltage

- Measuring range: 1mV ÷ 600V
- Resolution: 0.1mV÷1V
- Frequency band: 50Hz ÷ 60Hz
- Basic accuracy: ±(1.5%reading+ 3.5mV)
- Protection against overcharge: 600Vrms

### AC current

- Measuring range: 0.01A ÷ 600A
- Resolution: 1mA ÷ 0.1A
- Frequency band: 50Hz ÷ 60Hz
- Basic accuracy: ±(2.5%reading + 4digits)
- Protection against overcharge: 600Arms

### Resistance and continuity test with buzzer

- Measuring range: 1Ω ÷ 20MΩ
- Resolution: 0.1Ω ÷ 0.01MΩ
- Basic accuracy: ±(1.0%reading + 4digits)
- Continuity buzzer: <150Ω

## Included accessories

- KIT4000A** Pair of test leads  
Soft carrying bag, battery and user manual

## Functions

- TRMS measurements
- AC TRMS current up to 3000A
- Flexible jaws with big diameter
- Autorange
- Data HOLD
- MAX/MIN
- Backlight
- Auto Power OFF

## Main features

- Display:** LCD, 4 digits, 3000 dots  
**Conversion type:** TRMS  
**Power supply:** 2x1.5V alkaline batteries type AAA LR03 after 20 minutes' idling  
**Auto Power OFF:** 110mm  
**Max diameter of clamp:** IEC/EN61010-1  
**Safety:** CAT IV 600V - CAT III 1000V  
**Measurement category:** double insulation  
**Insulation:** 2  
**Pollution level:** 2  
**Size (LxWxH):** 280x120x25mm  
**Weight (batteries included):** 170g

## Technical Specifications

### AC TRMS current

- Measuring range: 0.1A ÷ 3000A
- Resolution: 0.01 ÷ 1A
- Frequency range: 45Hz ÷ 500Hz
- Basic accuracy: ±(3%reading + 5digits)

## Included accessories

- Batteries**  
**Soft carrying bag**  
**User Manual**





ORDER CODE **HP000100**

# HT100

FORK CLAMP METER  
AC 200A TRMS

Professional clamp meter HT100 is provided with automatic recognition of functions. The measurement of **AC current up to 200A** and **AC/DC voltage up to 1000V** in TRMS reaches **CAT IV 600V** and **CAT III 1000V** in compliance with standard **IEC/EN61010-1**. The clamp is provided with "open" jaws, with a wide display with 9999 measuring spots, "Voltsense" phase detector function, **Data HOLD** and **backlight** to allow for a simple reading even in poorly lit environments. HT100 also carries out measurements of **Resistance**, **Continuity test** and **Diode test**. The clamp is also provided with the auto power off function to preserve its own battery.



ORDER CODE **HP007004 | HP007005**

# HT7004 HT7005

POCKET CLAMP METERS  
FOR TRMS AC CURRENT UP TO 400A  
WITH MEASUREMENT OF INRUSH CURRENT



Clamp meter **HT7005** can measure **DC** and **AC TRMS** current up to **400A** in Autorange, in compliance with standard **IEC/EN61010-1**, **CAT III 300V**, further to measuring the **inrush current of electric motors** with a response time of **100ms**. Model **HT 7004** can measure **only AC TRMS current** up to **300A**. Both devices are provided with **Data HOLD** function and **Auto Power Off** function, in order to preserve the internal battery when not in use. Thanks to its **extremely small size**, these models are very practical and they are the ideal solution for simple measurements in the most common domestic and industrial environments.

## Functions

- TRMS measurements
- AC TRMS current up to 200A
- DC/AC TRMS voltage up to 1000V
- "Voltsense" for AC voltage detection
- Resistance
- Continuity test with buzzer
- Diode test
- Autorange
- Autorecognition function
- Data HOLD
- Backlight
- Auto Power OFF

## Main features

**Display:** LCD, 4 digits, 10000 dots, backlight  
**Conversion type:** TRMS  
**Power supply:** 2x1.5V alkaline batteries type AAA LR03  
**Auto Power OFF:** after 20 minutes' idling  
**Max diameter of clamp:** 16mm  
**Safety:** IEC/EN61010-1  
**Measurement category:** CAT IV 600V, CAT III 600V  
**Insulation:** double insulation  
**Pollution level:** 2  
**Size (LxWxH):** 193x54x31mm  
**Weight (batteries included):** 280g

## Technical Specifications

- DC voltage (Autorange)**
- Measuring range: 2.2V ÷ 1000V
  - Resolution: 0.1V
  - Basic accuracy: ±(0.3%reading + 2digits)
  - Protection against overcharge: 1000VDC/ACrms
- AC TRMS voltage (Autorange)**
- Measuring range: 1.3V ÷ 1000V
  - Frequency band: 50Hz ÷ 500Hz
  - Resolution: 0.1V
  - Basic accuracy: ±(0.9%reading + 3digits)
  - Protection against overcharge: 1000VDC/ACrms
- AC TRMS current (Autorange)**
- Measuring range: 1.5A ÷ 200A
  - Resolution: 0.1A
  - Frequency range: 50Hz ÷ 60Hz
  - Basic accuracy: ±(3%reading + 5digits)
  - Protection against overcharge: 200Arms
- Resistance and Continuity test**
- Measuring range: 0Ω ÷ 9999Ω
  - Resolution: 1Ω
  - Basic accuracy: ±(0.9%reading + 2digits)
  - Protection against overcharge: 1000VDC/ACrms
  - Continuity buzzer: <25Ω

## Included accessories

- 4413-2** Pair of test leads  
 Batteries and user manual

## Functions

	HT7004	HT7005
AC TRMS current	300A •	400A •
DC current	-	400A •
Inrush current (INRUSH)	-	•
AC voltage detection without contact	•	•
Autorange	•	•
Data HOLD	•	•
ZERO function (zeroing)	-	•
Backlight	•	•
Auto Power OFF	•	•

## Main features

**Power supply:** 2x1.5V batteries type AAA LR03  
**Safety:** IEC/EN61010-1  
**Measurement category:** CAT III 300V  
**Insulation:** double insulation  
**Pollution level:** 2  
**Max operating altitude:** 2000m  
**Display:** 3¼ LCD, 4000 dots, decimal sign and point  
**Max cable diameter:** 20mm  
**Size (LxWxH):** 155x60x25mm  
**Weight (batteries included):** 140g

## Included accessories

- Soft carrying bag  
 Batteries  
 User Manual



ORDER CODE HP009021

# HT9021

AC/DC TRMS CAT IV 600V CLAMP METER WITH TEMPERATURE MEASUREMENT

HT9021 has been designed to measure AC/DC current up to 1000A in TRMS reaching CAT IV 600V and CAT III 1000V in compliance with safety standard IEC/EN61010-1. The clamp is provided with a display with 6000 measuring spots with backlight and bargraph to allow for a simple reading even in poorly lit environments. HT9021 also carries out measurements of voltage up to 1000V, Resistance, Frequency, Capacity and Temperature with K-type probe.



ORDER CODE HP009015

# HT9015

AC/DC TRMS 600A CAT IV CLAMP METER WITH TEMPERATURE MEASUREMENT

HT9015 has been designed to measure AC/DC current up to 600A and AC/DC voltage up to 1000V in TRMS reaching CAT IV 600V and CAT III 1000V in compliance with safety standard IEC/EN61010-1. The clamp is provided with a display with 6000 measuring spots with backlight and bargraph to allow for a simple reading even in poorly lit environments. HT9015 also measures Resistance, Frequency, Capacity and Temperature with K-type probe.

## Functions

- TRMS measurements
- AC/DC voltage up to 1000V
- AC/DC current up to 1000A
- Resistance and Continuity test
- "Voltsense" for AC voltage recognition
- Frequency with clamp jaws and leads
- Capacity, Duty cycle, Diode test
- Temperature with K-type probe
- Autorange, Data HOLD
- MAX/MIN, PEAK (<10ms)
- Relative measurements
- Backlight, Bargraph
- Auto Power OFF

## Technical Specifications

- DC voltage (Autorange)**
- Measuring range: 3mV ÷ 1000V
  - Basic accuracy: ±(1.0%reading + 3digits)
- AC TRMS voltage (Autorange)**
- Measuring range: 0.03V ÷ 1000V
  - Frequency range: 50Hz ÷ 400Hz
  - Basic accuracy: ±(1.0%reading + 4digits)
- DC current**
- Measuring range: 0.3A ÷ 1000A
  - Basic accuracy: ±(2.0%reading + 8digits)
- AC TRMS current**
- Measuring range: 0.3A ÷ 1000A
  - Frequency range: 50Hz ÷ 400Hz
  - Basic accuracy: ±(2.8%reading + 8digits)
- Resistance and Continuity test**
- Measuring range: 3Ω ÷ 60MΩ
  - Basic accuracy: ±(1.0%reading + 5 digits)
  - Buzzer: <50Q
- Frequency with clamp jaws and leads**
- Measuring range: 0.5Hz ÷ 60kHz
  - Basic accuracy: ±(1.0%reading + 5digits)
- Capacity**
- Measuring range: 0.2nF ÷ 4mF
  - Basic accuracy: ±(2.5%reading + 5digits)
- Temperature with K-type probe**
- Measuring range: -20°C ÷ 760°C;
  - Basic accuracy: ±(2.0%reading + 3°C)

## Included accessories

YAAMK0000HTO	Pair of test leads
T10	Adapter for K-type wire probe
TK101	K-type wire probe
YABRS0000NNO	Soft carrying bag
	Batteries and user manual

## Functions

- TRMS measurements
- AC/DC voltage up to 1000V
- AC/DC current up to 600A
- Resistance and Continuity test
- "Voltsense" for AC voltage recognition
- Frequency with clamp jaws and leads
- Capacity
- Duty cycle
- Diode test
- Temperature with K-type probe
- Autorange
- Data HOLD
- MAX/MIN
- PEAK (<10ms)
- Relative measurements
- Backlight and Bargraph
- Auto Power OFF

## Technical Specifications

- DC voltage (Autorange)**
- Measuring range: 3mV ÷ 1000V
  - Basic accuracy: ±(1.0%reading + 3digits)
- AC TRMS voltage (Autorange)**
- Measuring range: 0.03V ÷ 1000V
  - Frequency range: 50Hz ÷ 400Hz
  - Basic accuracy: ±(1.0%reading + 4digits)
- DC current**
- Measuring range: 0.3A ÷ 600A
  - Basic accuracy: ±(2.0%reading + 8digits)
- AC TRMS current**
- Measuring range: 0.3A ÷ 600A
  - Frequency range: 50Hz ÷ 400Hz
  - Basic accuracy: ±(2.8%reading + 8digits)
- Resistance and Continuity test**
- Measuring range: 3Ω ÷ 60MΩ
  - Basic accuracy: ±(1.0%reading + 5 digits)
  - Buzzer: <50Ω
- Frequency with clamp jaws and leads**
- Measuring range: 0.5Hz ÷ 60kHz
  - Basic accuracy: ±(1.0%reading + 5digits)
- Capacity**
- Measuring range: 0.2nF ÷ 4mF
  - Basic accuracy: ±(2.5%reading + 5digits)
- Temperature with K-type probe**
- Measuring range: -20°C ÷ 760°C; -4°F ÷ 1400°F
  - Basic accuracy: ±(2.0%reading + 6°F)

## Included accessories

YAAMK0000HTO	Pair of test leads
T10	Adapter for K-type wire probe
TK101	K-type wire probe
	Battery, User manual and Soft carrying bag

## Main features

Display:	LCD, 4 digits, 6000 dots
Conversion type:	TRMS
Power supply:	1x9V battery type IEC6F22
Auto Power OFF:	after 15 minutes' idling
Max diameter of clamp:	45mm
Safety:	IEC/EN61010-1
Measurement category:	CAT IV 600V – CAT III 1000V
Insulation:	double insulation
Pollution level:	2
Size (LxWxH):	252x88x42mm
Weight (batteries included):	420g

## Main features

Display:	LCD, 4 digits, 6000 dots
Conversion type:	TRMS
Power supply:	1x9V battery type IEC6F22
Auto Power OFF:	after 15 minutes' idling
Max diameter of clamp:	30mm
Safety:	IEC/EN61010-1
Measurement category:	CAT IV 600V - CAT III 1000V
Insulation:	double insulation
Pollution level:	2
Size (LxWxH):	210x75x45mm
Weight (batteries included):	400g



ORDER CODE **HP004013**

# HT4013

CLAMP METER AC/DC 400A

Clamp meter HT4013 has been designed to measure **AC/DC current up to 400A and AC/DC voltage up to 600V** to reach **CAT III 600V** in compliance with standard IEC/EN61010-1. The clamp is provided with an internal sensor to detect AC voltage also without contact, through a red LED turning on. This model also carries out measurements of **Resistance, Continuity tests, Frequency, Capacity, Diode test, Duty Cycle and Temperature with K-type probe**, among others. The clamp is also provided with the auto power off function to preserve its own battery.



TRMS



YouTube



ORDER CODE **HP009020**

# HT9020

PROFESSIONAL CLAMP METERS WITH POWER/HARMONIC AND INRUSH MEASUREMENT

HT9020 have been designed for measuring DC, AC+DC TRMS current up to 1000A to obtain CAT IV 600V in compliance with standard IEC/EN61010-1. It also measures **Active, Reactive and Apparent Power, Energy, voltage/current harmonic analysis up to the 25<sup>th</sup> with THD% calculation** in single-phase or balanced three-phase systems. It allows testing phase sequence and concordance with the 1-terminal measuring method. It is also possible to detect the events linked to **motor starting (INRUSH) currents**. HT9020 is provided with a wide graphic dot-matrix screen (128x128pxl) with backlight, in order to allow reading data even in poorly lit environments. Auto power off function preserves internal battery.

## Functions

- AC/DC current up to 400A
- AC/DC voltage up to 600V
- "Volsense" for AC voltage detection
- Resistance and continuity test with buzzer
- Frequency with leads, Capacity, Diode test
- Duty Cycle (%)
- Temperature with K-type probe
- Autorange, Data HOLD, MAX/MIN/Relative measurement



## Technical Specifications

### DC voltage (Autorange)

- Measuring range: 2mV ÷ 600V
- Resolution: 0.1mV ÷ 1V
- Basic accuracy: ±(0.8%reading + 2ldigits)
- Protection against overcharge: 600VDC/ACrms

### AC voltage (Autorange)

- Measuring range: 0.02V ÷ 600V
- Frequency band: 50Hz ÷ 400Hz
- Resolution: 0.001V ÷ 1V
- Basic accuracy: ±(1.5%reading + 5ldigits)
- Protection against overcharge: 600VDC/ACrms

### AC/DC current

- Measuring range: 0.2A ÷ 400A
- Resolution: 0.01A ÷ 1A
- Frequency range: 50Hz ÷ 60Hz
- Basic accuracy: ±(2.5%reading + 5ldigits)
- Protection against overcharge: 400Arms

### Resistance and Continuity test

- Measuring range: 2Ω ÷ 40MΩ
- Resolution: 0.1Ω ÷ 0.01MΩ
- Basic accuracy: ±(1.0%reading + 4ldigits)
- Protection against overcharge: 600VDC/ACrms
- Continuity buzzer: <30Ω

### Capacity

- Measuring range: 0.2nF ÷ 100μF
- Resolution: 0.01nF ÷ 0.1μF
- Basic accuracy: ±(3.0%reading + 5ldigits)
- Protection against overcharge: 600VDC/ACrms

### Frequency and Duty Cycle

- Measuring range: 10Hz ÷ 10kHz
- Resolution: 0.01Hz ÷ 0.01kHz
- Basic accuracy: ±(1.5%reading + 2ldigits)
- Protection against overcharge: 600VDC/ACrms
- Duty Cycle: Measuring range 0.5% ÷ 99%

### Temperature with K-type probe

- Measuring range: -20°C ÷ 760°C
- Resolution: 0.1°C ÷ 1°C
- Basic accuracy: ±(3%reading + 5°C)

## Functions

- DC, AC + DC TRMS current up to 1000A
- DC, AC + DC TRMS voltage up to 1000V
- Frequency with test leads and clamp jaws
- Phase sequence / phase concordance
- Resistance and Continuity test
- Measurement of DC power and energy
- Active, reactive, apparent power measurement on single-phase systems
- Power factor measurement on single-phase systems
- Voltage/current harmonic measurement up to the 25<sup>th</sup> and THD%
- Motor starting (INRUSH) current detection
- Autorange
- Backlight
- Auto Power OFF
- Data HOLD, MAX/MIN/CREST



## Main features

- Display:** dot-matrix 128x128pxl with backlight
- Power supply:** 2x1.5V batteries type AAA
- Duration:** > 50 hours
- Safety:** IEC/EN61010-1
- Insulation:** Double insulation
- Pollution level:** 2
- Measurement category:** CAT IV 600V to earth, max 1000V between inputs
- Max diameter of cable:** 45mm
- Size (LxWxH):** 252x88x44mm
- Weight (batteries included):** 0.42kg

## Main features

- Display:** LCD, 4 digits, 4000 dots
- Conversion type:** RMS
- Power supply:** 2x1.5V alkaline batteries type AAA LR03
- Auto Power OFF:** after 30 minutes' idling
- Max diameter of clamp:** 30mm
- Safety:** IEC/EN61010-1
- Measurement category:** CAT III 600V
- Insulation:** double insulation
- Pollution level:** 2
- Size (LxWxH):** 200x66x37mm
- Weight (batteries included):** 205g

## Included accessories

KIT4000A	Pair of leads with 2mm tip
T10	Adapter for K-type wire probe
TK101	K-type wire probe
	Battery, User manual and Soft carrying bag



## Included accessories

YAAMK0000HTO	Pair of test leads
YAAMK0001HTO	Pair of alligator clips
YABRS0000NNO	Soft carrying bag
	Batteries
	User manual on CD-ROM
	ISO9000 calibration certificate
	Quick user guide



ORDER CODE HP004022 | HP004020

# HT4022 HT4020

AC TRMS 400A CLAMP METERS  
WITH POWER/HARMONICS MEASUREMENT

Professional clamp meters HT4020 and HT4022 carry out measurements in TRMS of AC current up to 400A, AC/DC voltage up to 600V, Frequency, Resistance, Continuity test, Active, Reactive, Apparent Power,  $\cos\phi$ , Energy for balanced single-phase and/or three-phase systems, further to the detection of phase sequence by 1-terminal method. Model HT4022 also carries out the absolute/percentage measurement of voltage and current harmonic components with calculation of THD%. Each device complies with IEC/EN61010-1 in CAT III 600V and is the ideal solution or troubleshooting typical problems in industrial environments such as non-linear loads, frequency-controlled motors.



## Functions

	HT4022	HT4020
DC/AC TRMS voltage	•	•
AC TRMS current	•	•
Resistance and Continuity test	•	•
Frequency with test leads and clamp jaws	•	•
Active, Reactive, Apparent power	•	•
Active, Reactive, Apparent energy	•	•
Power factor and $\cos\phi$	•	•
V/I harmonics up to the 25th and THD%	•	-
Phase sequence with 1 terminal	•	•
Autorange	•	•
Data HOLD	•	•
MAX/MIN/AVG/PEAK	•	•
Backlight	•	•
AutoPowerOFF	•	•

## Main features

<b>Display:</b>	LCD, 4 digits, 10000 dots
<b>Conversion type:</b>	TRMS, 64 samples in 20ms
<b>Power supply:</b>	2x1.5V batteries type AAA LR03
<b>Auto Power OFF:</b>	after 5 minutes' idling
<b>Safety:</b>	IEC/EN 61010-1
<b>Measurement category:</b>	CAT III 600V
<b>Pollution level:</b>	2
<b>Insulation:</b>	double insulation
<b>Max height:</b>	2000mm
<b>Clamp jaw internal diameter</b>	30mm
<b>Size (LxWxH):</b>	205x64x39mm
<b>Weight (batteries included):</b>	approx 280g

## Included accessories

4413-2	Pair of test leads
YAAMK0001HTO	Pair of alligator clips
B80	Soft carrying bag
	Rubber cap for test lead
	ISO9000 calibration certificate
	Batteries and user manual

## Technical Specifications

	HT4022	HT4020
<b>DC voltage</b>		
Measuring range:	0.1V ÷ 600V	0.1V ÷ 600V
Resolution:	0.1V	0.1V
Basic accuracy:	±(1.0%read. + 3digits)	±(1.0%read. + 3digits)
Protection:	600Vrms	600Vrms
<b>AC TRMS voltage</b>		
Measuring range:	1.6V ÷ 600V	1.6V ÷ 600V
Resolution:	0.1V	0.1V
Basic accuracy:	±(1.0%read. + 3digits)	±(1.0%read. + 3digits)
Protection:	600Vrms	600Vrms
<b>AC TRMS current</b>		
Measuring range:	0.1A ÷ 400A	0.1A ÷ 400A
Resolution:	0.1A	0.1A
Basic accuracy:	±(1.0%read. + 3digits)	±(1.0%read. + 3digits)
Protection:	600Arms	600Arms
<b>Active, Reactive, Apparent ac power [kW, kVAR, kVA]</b>		
Measuring range:	0.01 ÷ 1000	0.01 ÷ 1000
Resolution:	0.01 ÷ 0.1	0.01 ÷ 0.1
Basic accuracy:	±(3.5%read. + 3digits)	±(3.5%read. + 3digits)
Protection:	600V/600Arms	600V/600Arms

	HT4022	HT4020
<b>Power factor and <math>\cos\phi</math></b>		
Measuring range:	0.20 ÷ 1.00	0.20 ÷ 1.00
Resolution:	0.01	0.01
Basic accuracy:	±3°	±3°
<b>voltage and current harmonics</b>		
Harmonic order:	1 ÷ 25	-
Resolution [V, A]:	0.1	-
Basic accuracy:	±(1.0%read. + 5digits)	-
<b>Resistance and Continuity test</b>		
Measuring range:	0.1Ω ÷ 2kΩ	0.1Ω ÷ 2kΩ
Resolution:	0.1Ω ÷ 3Ω	0.1Ω ÷ 3Ω
Basic accuracy:	±(1.0%read. + 5digits)	±(1.0%read. + 5digits)
Continuity test	<400	<400
Protection:	600Vrms	600Vrms
<b>Frequency with test leads and clamp jaws</b>		
Measuring range:	40Hz ÷ 400Hz	40Hz ÷ 400Hz
Resolution:	0.1Hz	0.1Hz
Basic accuracy:	±(0.5%read. + 1digit)	±(0.5%read. + 1digit)
Protection:	600Vrms/600Arms	600Vrms/600Arms
<b>Phase sequence with 1 terminal</b>		
Measuring range:	50V ÷ 600V	50V ÷ 600V
Frequency range:	40Hz ÷ 69Hz	40Hz ÷ 69Hz
Protection:	600Vrms	600Vrms



TRMS

ORDER CODE **HP000079** | **HP000078** | **HP00077N**

# HT79|HT78 HT77N

CLAMP METERS  
FOR MEASURING LEAKAGE CURRENT

Models HT77N, HT78 and HT79 are clamp meters designed for an **accurate measurement of very low values of AC and DC currents** (only HT79) and, therefore, they are mainly employed in detecting and defining **leakage currents in domestic and industrial electric systems**, which typically cause the RCDs' tripping. Devices HT77N and HT78 are provided with an **in-built low-pass filter to eliminate harmonic components**. HT78 is provided with an analogue output for the connection to possible external data loggers and, thanks to its big jaws (108mm), it is possible to measure leakage currents even in installations with cables having a big cross-section. Model HT79 also allows measuring AC/DC voltage and resistance/continuity test.



## Functions

	HT77N	HT78	HT79
TRMS measurements	•	•	•
AC/DC voltage	-	-	• (300V)
DC Current	-	-	• (10A)
AC Current	• (100A)	• (3000A)	• (20A)
Resistance and Continuity test	-	-	•
Low-pass filter	• (150Hz)	• (100Hz)	-
Analogue DC output	-	•	-
Data HOLD	•	•	•
Auto HOLD	•	•	-
Peak HOLD	•	•	-
Relative measurements (ZERO)	-	-	•
Autorange	•	•	•
Backlight	•	-	•
Bargraph	•	-	-
Auto Power OFF	•	•	•

## Technical Specifications

	HT77N	HT78	HT79
<b>AC TRMS current</b>			
Measuring range:	0.01mA ÷ 100A	0.1mA ÷ 3000A	0.1mA ÷ 20A
Resolution:	0.001mA ÷ 0.1A	0.1mA ÷ 1A	0.1mA ÷ 0.01A
Basic accuracy:	±(1.0read + 8digit)	±(1.5read + 8digit)	±(1.0read + 5digit)
Protection:	max 120Arms	3000Arms	max 20Arms
<b>DC current</b>			
Measuring range:	-	-	0.1mA ÷ 20A
Resolution:	-	-	0.1mA ÷ 0.01A
Basic accuracy:	-	-	±(1.0read + 10digit)
Protection:	-	-	max 10ADC

## Main features

<b>Display:</b>	LCD 4 digits, 6000 dots ( <b>HT77N</b> ) LCD 4 digits, 3200 dots ( <b>HT78</b> ) LCD 4 digits, 5000 dots ( <b>HT79</b> )
<b>Conversion type:</b>	TRMS
<b>Power supply:</b>	2x1.5V batteries type AAA LR03
<b>Safety:</b>	IEC/EN 61010-1
<b>Measurement category:</b>	CAT III 300V ( <b>HT77N</b> ) CAT II 600V, CAT III 300V ( <b>HT78</b> ) CAT IV 300V ( <b>HT79</b> )
<b>Insulation:</b>	double insulation
<b>Pollution level:</b>	2
<b>Max height:</b>	2000m
<b>Clamp jaw internal diameter</b>	40mm ( <b>HT77N</b> ), 108mm ( <b>HT78</b> ) 23mm ( <b>HT79</b> )
<b>Auto Power OFF:</b>	after 20 minutes' idling ( <b>HT77N</b> ) after 10 minutes' idling ( <b>HT78</b> )
<b>Size (LxWxH):</b>	202x75x42mm ( <b>HT77N</b> ) 341x194x52mm ( <b>HT78</b> ) 206x76x34mm ( <b>HT79</b> )
<b>Weight (batteries included):</b>	265g ( <b>HT77N</b> ), 1.9kg ( <b>HT78</b> ), 262g ( <b>HT79</b> )

## Included accessories

Pair of test leads ( <b>HT79</b> )
Soft carrying bag
Batteries
Non-slip strap ( <b>HT78</b> )
User Manual

